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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Alan C. Noble

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EXAMINER

TRUONG, CAMQUY

ART UNIT

PAPER NUMBER

2195

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/896,264	<b>Applicant(s)</b> NOBLE, ALAN C.	
	<b>Examiner</b> Camquy Truong	<b>Art Unit</b> 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-29 are presented for examination.
2. It is noted that although the present application does contain line numbers in the specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the examiner and Applicant all future correspondence should include the recommended line numbering.

### ***Claim Objections***

3. Claims 9 -10 are objected to because of the following informalities:
  - (a). As to claim 9, line 2, replace "is based change" with " is changes " or " is based on change". Appropriate correction is required.
  - (b). As to claim 10, line 2, replace "is based on assumed" with " based on assumed". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The claim language in the following claims is not clearly understood:

i. As to claim 1, lines 9-11, it is not clearly understood what is going to be changed (i.e. process, performing or location or the location to perform a process is changed between client and server); Lines 12-13, it is not clearly indicated base on what information so that the process should be run at the server or client (i.e. system performance, load, quality of service, or the configuration of the servers or clients).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-26, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fields et al (U.S. Patent 6,128,655) in view of Ando (U.S. Patent 6,678,715 B1).

8. As to claim 1, Fields teaches the invention substantially as claimed including: a client-server computing process wherein at least one server responds to requests from clients by returning information to clients (col. 1, lines 23-27), the computing process comprising:

Initiating a request at a client (col. 4, lines 33-36; col. 17, lines 54-55);

Communicating the request to the server (col. 4, lines 36-42; col. 17, lines 55-57);

Responding to the request at the server by returning information to the client, wherein the information returned goes at least parsing, layout, and rendering processes before being displayed at the client (col. 3, lines 2-14; col. 4, lines 42-63; col. 17, lines 58-67).

9. Fields does not explicitly teach configuring the software carrying out at least one of the parsing and layout processes so that the location at which the process is performed can be changed between server and client at run time; making a load-balancing determination as to whether the process should be run at the server or client; and running the process at the chosen location. However, Ando teaches:

Configuring software carrying out at least one of process so that the location at which the process is performed can be changed between server and client at run time (Fig. 6-7; col. 4, lines 7-16; lines 38-41; col. 5, line 66- col. 6, lines 17; col. 9, line 59 – col. 10, line 4; col. 11, line 60 – col. 12, line 9; col. 12, lines 44-54; col. 41, lines 2-6);

Making a load-balancing determination as to whether the process should be run at the server or client (col. 4, lines 14-16 and 26-41; col. 12, lines 44-54); and

Running the process at the chosen location (col. 4, lines 1-3 and lines 14-21; col. 6, lines 20-22; col.10, lines 50-67).

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Fields and Ando because Ando's configuring the software carrying out at least one of the parsing and layout processes so that the location at which the process is performed can be changed between server and client at run time; making a load-balancing determination as to whether the process should be run at the server or client; and running the process at the chosen location would improve the efficiency of Field's system by making a load-balancing determination as to whether the process should be run at the server or client at run time; and running the process at the chosen location to allow the process to be switch between server and client so as to increase the flexibility of system and obtain the result of processing faster.

11. As to claim 2, Field teaches the client-server computing process is a web browsing process, and the server and clients are a browser server and a browser clients (col. 3, line 64- col. 4, lines 13).

12. As to claim 3, Field teaches the browser server communicates with a web server to retrieve information (col. 4, lines 36-42).

13. As to claim 4, Ando teaches the load balancing determination is based at least in part on a quality of service determination of the quality of service provided by one or both of the client and server (col. 3, lines, 58-61; col.4, lines 24-35; col. 12, lines 44-50).

Art Unit: 2195

14. As to claim 5, Ando teaches the quality of service determination is based on latency of processes carried out on one or both the client and server (col. 15, lines 11-47).

15. As to claim 6, Ando teaches the load-balancing determination is based at least in part on the load of one or both of the client and server (col. 2, lines 13-15; col. 4, lines 25-31; col. 10, lines 1-8).

16. As to claims 7-8, Ando teaches the load-balancing determination is based at least in part on the configuration of the clients and servers (col. 3, lines 59-62; col. 13, lines 1-8; col. 14, lines 18-24).

17. As to claim 9, Ando teaches the configuration on which the load-balancing determination is based is assumed to remain static after a load-balancing determination based on such configuration is made (col. 2, lines 63-67; col. 4, lines 25-41; col. 15, lines 51-55).

18. As to claims 10-11, Ando teaches the configuration on which the load-balancing determination is based is assumed to remain static after a load-balancing determination based on such configuration is made (col. 2, lines 48-51).

19. As to claims 12 and 14, Ando teaches the load-balancing determination is based on both the configuration of the clients and a quality of service determination of quality of service provided by one or both of the client and server (col. 4, lines 26-37; col. 14, lines 1-55).

20. As to claims 13 and 18, it is rejected for the same reason as claim 5.

21. As to claims 15-16, Ando teaches the layout and parsing processes are configured so that the location at which both processes are run may be changed between server and clients (col. 9, line 59-col. 10, line 4).

22. As to claim 17, Ando teaches during operation further changes are made to the location at which processes are carried out based on quality of service determination (col. 4, lines 26-41).

23. As to claims 19-20, Ando teaches the processes that are carried out at either server or client comprise distributed objects that migrate between client and server (col. 3, lines 58-62).

24. As to claim 21, Ando teaches a fetching process that can be run either the client or the server based on the outcome of a load-balancing determination (col. 14, lines 1-14 and lines 42-50).



Art Unit: 2195

25. As to claim 22, Ando teaches the rendering process is always performed at the client (col. 9, line 63-col. 10, line 4 and lines 28-31; col. 19, lines 21-23).

26. As to claim 23, Ando teaches a script evaluation and execution process that can be run at either the client or the server based on the outcome of a load balancing determination (col.12, lines 50-58).

27. As to claim 24, Ando teaches information is cached at the client, and the type information cached varied depending on which processes are running the client (col. 16, lines 57-64).

28. As to claim 25, Ando teaches the load balancing determination is based of one or more of the following: client computational resource, client load, server computational resources, server load, number of clients per server, network traffic between clients and server, and security ( col. 4, lines 25-35 ;col. 12, lines 43-49; col. 40, lines 6-8).

29. As to claim 26, Ando teaches the load balancing determination is based on one or more of the following: latency of processing a request downstream/upstream from a given process, and latency of processing a request of a given process (col. 15, lines 11-47)

30. As to claim 28, Ando teaches the step of making a load – balancing determination is not repeated for a period of time so that the process continues to run at the chosen location (col. 14, lines 18-24).

31. As to claim 29, Ando teaches the processes that run at the server are interconnected by a switch (col. 3, lines 58-62; col. 18, line 3-5).

32. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fields et al (U.S. Patent 6,128,655) in view of Ando (U.S. Patent 6,678,715 B1), as applied as claim 1 above, and further in view of Rossmann (U.S. Patent 6,119,155).

33. As to claim 27, Fields teaches at least the parsing and layout processes are pre-configured on the clients and server (abstract, lines 1-3-15; col. 4, line 25 – col. 5, line 3).

34. Fields and Ando do not explicitly teach so that they may be run on demand, by activating one of parsing and layout processes on one of the client and server, and deactivation the same one of the parsing and lay out processes process on the other on the other on the client and server, approximately simultaneously. However, Rossmann teaches so that they may be run on demand, by activating one of parsing and layout processes on one of the client and server, and deactivation the same one of the parsing

Art Unit: 2195

and lay out processes process on the other on the other on the client and server, approximately simultaneously (col. 13, lines 3-22; col. 14, lines 8-43).

35. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Fields, Ando and Rossmann because Rossmann's activating one of parsing and layout processes on one of the client and server, and deactivation the same one of the parsing and lay out processes process on the other on the other on the client and server, approximately simultaneously would increase the throughput of Fields and Ando's system to minimize the air traffic and increase the response time when processing the request.

### ***Conclusion***

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (571) 272-3773. The examiner can normally be reached on 8:00Am – 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3756.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 2195

published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Camquy Truong

May 6, 2006

  
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